# California Department of Technology, Office of Technology Services LOCAL AREA NETWORK GUIDELINE

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#### 1.0 GENERAL

#### 1.1 SUMMARY

The Office of Technology Services (OTech) maintains network infrastructure that support the products and services offered within the Application Hosting offering. This document describes information specific to Local Area Network (LAN) services.

The OTech LAN infrastructure is a shared and scalable network of devices within the Data Center. OTech staff installs, configures and maintains network devices and technological infrastructure to securely support the computing needs of Data Center Customers. Staff performs these tasks in accordance with internal procedures.

The OTech LAN infrastructure is constructed with OTech -managed equipment in accordance with OTech procurement policies. Neither Customer-managed equipment nor Customer access to OTech -managed equipment is permitted within this offering.

#### 1.2 REFERENCES

Items below support or are referenced elsewhere in this guideline.

IDENTIFIER	DATE	TITLE
04.15.881	2012	Local Area Network Submittal
363	2012	Firewall Configuration Submittal
3117	2010	OTech Network Architecture Standard
3502		Information Security Exception Request Procedure
Website		OTech Contact Information
Website		OTech Service Request Process
Website		OTech Remedy Request Process

#### 1.3 **SUBMITTALS**

#### 1.3.1 General

OTech is available to advise and assist customers in formulating IT designs that will utilize available service offerings. Contact your OTech Account Manager to engage architectural/engineering and design consulting services. Additional charges may be incurred.

#### 1.3.2 Service Request Criteria

Include the Customer's name, contact information and associated project name on forms, documents, and requests submitted to OTech.

OTech requires the following request method be used for work requests:

Item	Request Method
Quotes & Billable Service	OTech Customer Service System (CSS)
(new or changes to existing services)	Request
Modifications to Existing Systems	OTech Service Desk, CSS or Remedy Service
	Request
Technical Problems	OTech Service Desk, CSS or Remedy Incident
Security Related Issues/Incidents	OTech Service Desk

#### 1.3.2.1 Service Request Criteria - Part I

To aid us in the preparation of providing this service to you, we require the following information be included in a OTech <u>Service Request</u>:

- Submittal: A completed <u>Local Area Network Submittal</u> for **EACH** requested environment. One (1) environment per OTech Service Request is preferred.
- 2. Logical Network Diagram(s): One (1) for **EACH** environment, in accordance with OTech Network Architecture Standard. Specific reference to Section 2, B. Standard Network Architectures which states "The Security Management Section requires that systems be designed to one (1) of the two (2) network architectures (Three-Tier or zOS Architecture)."
- 3. Conceptual System/Application Flow Diagram(s): One (1) for EACH environment

Once the above three items have been accepted and approved by both OTech and the Customer, OTech will construct the environments in accordance with the completed <u>Local Area Network Submittal</u> following internal OTech Policies and Standards.

#### 1.3.2.2 Service Request Criteria – Part II

Following Part I requirements indicated above, a completed <u>Firewall Configuration Submittal</u> must be submitted in the same or additional SR. If this is an expedited request that requires implementation in less than the timeframe indicated in 1.5 - SCHEDULING, additional fees may apply.

This Submittal is to be revised at appropriate intervals providing for expeditious and practicable execution of the work. Revised submittal(s) **must** indicate changes, so as to not delay timely implementation of firewall configurations.

#### 1.4 EXPECTATIONS

#### 1.4.1 OTech

OTech manages equipment procurements, installations, upgrades, patching and maintenance of network equipment.

Technology products must be within vendor supported versions to sustain availability and integrity.

OTech follows change management practices. Change requests are recorded in <u>OTech</u> <u>Remedy Service Request</u> system, as a Change Request (CRQ). Contact your OTech Account Manager for current change procedures.

#### 1.4.2 Customer

Customers are expected to design IT solutions in accordance with <u>OTech Network Architecture Standard 3117.</u>

Customers are expected to provide logical system flow diagram(s) per hosted environment upon request by OTech. Customers should maintain system flow diagram(s) as environments are implemented or modified and accepted by both Customer and OTech.

Customers are expected to estimate network utilization (bandwidth, communication size) based on environment application needs.

Customers are to determine and submit technology details required to meet their needs.

#### 1.5 **SCHEDULING**

OTech's goal is to provide timely, comprehensive and economical technology service. Customers promote this goal by promptly providing information requested, and by keeping the OTech Account Manager / Project Manager informed of technology project status.

Firewall configuration requests, submitted on the <u>Firewall Configuration Submittal</u> will be implemented within 5 business days *after* necessary Information Security Officers (ISO) have approved the request.

Staff availability outside of regular business hours must be requested 2-weeks prior to the scheduled date for which LAN staff is needed.

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#### 1.5.1 Maintenance

Network maintenance activities are conducted during dedicated maintenance windows scheduled for Sunday from 0400 to 0700; however, changes may be scheduled to accommodate Customer needs. Additional charges may be incurred.

#### 1.5.2 Change Management Schedule

Network change proposals / requests follow the established OTech Change Management process. Changes require 2-week prior notification. Shorter periods may not always be expedited. Security related changes adhere to OTech Security Patching and Monitoring Standard practices.

#### 1.6 **DEFINITIONS**

Term, phrase, abbreviation	Definition
LAN	Local Area Network
CRQ	Change Request
ISO	Information Security Officer
IP	Internet Protocol
VLAN	Virtual Local Area Network

# 2.0 PRODUCTS

#### 2.1 LOCAL AREA NETWORK PRODUCTS

Network product makes and models will not be provided.

## 2.2 CORE NETWORK COMPONENTS

- 1. Network Connectivity
- 2. Internet Connectivity
- 3. IP Addressing
- 4. Firewalls
- 5. Routers
- 6. Switches
- 7. Cable Plant

## 2.3 OPTIONAL NETWORK ITEMS

- 1. Internet Connectivity
- 2. VPN Subnets
- 3. LAN-to-LAN Encryption
- 4. Server Load Balancing
- 5. Custom Application Firewall Rules

## 3.0 EXECUTION

#### 3.1 **SECURITY**

Construction of application hosting environments must adhere to the <u>OTech Network</u> Architecture Standard 3117.

Logical isolation via VLANs will be constructed as indicated by the number of requested subnets on the Local Area Network Submittal.

#### 3.2 QUALITY CONTROL

#### 3.2.1 OTech Responsibilities

- 1. Review and approval of submitted information prior to beginning work
- 2. Notify Customer of submittal flaws, if any
- 3. Product installation, upgrades, patching, and standard configuration
- 4. Assist customer in specifying design, if applicable, in accordance with information provided in 1.3 SUBMITTALS

#### 3.2.2 Customer Responsibilities

- 1. Accurately complete 1.3 Submittals information
- Configuration changes requested outside the scope delineated herein and needing intervention, correction, or troubleshooting by OTech Staff may incur additional charges.

#### 3.3 **SUPPORT AVAILABILITY**

Core business hours of LAN technical support are Monday through Friday 0700 – 1700. State holidays and mandated schedule alterations are observed and may impact staff availability. After hours technical support may be available upon request for additional fees via CSS.

#### 3.4 INSTALLATION

Logical LAN environment diagrams must be verified by, accepted and approved by OTech staff prior to the start of work for each requested environment or environment modification.

#### 3.4.1 OTech Responsibilities

1. Installations are provided in accordance with OEM product installation procedures and 1.3 – SUBMITTALS

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- 2. System-level administration
- 3. Construction of network environment(s) in accordance with 1.3 SUBMITTALS
- 4. IP addressing and firewall modifications
- Provide customer connectivity to application hosts in accordance with 1.3 -SUBMITTALS
- 6. Assist in resolution of network connectivity problems as it relates to the hosted environment
- 7. Perform network device upgrades and migrations
- Monitor network infrastructure utilization for capacity limitation thresholds and performance anomalies
- Resolve network infrastructure problems or seek vendor support for device issues through authorized escalation processes

#### 3.4.2 Customer Responsibilities

- 1. Define environment network connectivity requirements
- 2. Maintain current logical network design and application architecture documentation and provide them upon request to OTech
- 3. Maintain current application firewall configuration documentation
- Respond to network threshold limit notifications provided by OTech staff with mitigating action